REMARKS/ARGUMENTS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-22 are pending in the application, with Claims 1, 10 and 19-22 amended by the present amendment.

In the outstanding Office Action, Claims 1-6 were rejected under 35 U.S.C. § 102(e) as being anticipated by Caronni (U.S. Patent No. 6,507,908 B1); and Claims 7, 8, 16 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Caronni in view of Inoue et al. (U.S. Patent No. 6,170,057 B1, hereinafter Inoue).

Claims 1, 10 and 19-22 are amended to more clearly describe and distinctly claim Applicants' invention. Support for these amendments is found in Applicants' originally filed specification. No new matter is added.

Applicants acknowledge with appreciation the interview between the Examiner, the Examiner's supervisor, and Applicants' representative on March 14, 2005. During the interview, the Examiner acknowledged that the amended claims patentably distinguish over the cited references. In particular, the Examiners acknowledged that the Caronni reference fails to disclose decrypting and re-encrypting data communications.

Briefly recapitulating, amended Claim 1 is directed to a gateway device for carrying out a data relaying at a transport or upper layer between a first terminal device and a second terminal device which are capable of carrying out communications through networks with data secrecy based on a security association set up therebetween. The gateway device includes a) a security information management unit configured to obtain and manage information regarding a the security association; b) a data receiving unit configured to receive encrypted data from the first terminal device or the second terminal device; and c) a data decryption unit configured to obtain decrypted data by decrypting the encrypted data by

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utilizing the information regarding the security association at a time of relaying the communications with data secrecy between the first terminal device and the second terminal device. The gateway device also includes d) a data relay unit configured to carry out the data relaying at the transport or upper layer according to the decrypted data; e) a data encryption unit configured to encrypt data to be transmitted from the gateway device by utilizing the information regarding the security association; and f) a data transmitting unit configured to transmit the encrypted data encrypted by the data encryption unit to the second terminal device or the first terminal device. Claims 19 and 21 are directed to a method and a computer program product corresponding to the apparatus of Claim 1.

As described in Applicants' specification, the object of the present invention is to effectively combine a method for providing security such as IPSec and a device, such as a TCP-GW, and a Snoop proxy particularly provided between wired side terminal devices and wireless side terminal devices, for improving performance of TCP. Thus, the gateway according to the present invention is located between a first terminal device and a second terminal device. The first and second terminal devices are in security association with each other and thus carry out communications with each other with data secrecy based on the security association.

Caronni describes a method for secure data communications with a mobile machine in which a data packet is received from the mobile machine having a particular network address, where an association between secured and unsecured network addresses is maintained.[1] However, Caronni fails to disclose or suggest a security association between first and second devices. That is, in Caronni, only an internal secure network is secured from an external terminal such as a mobile device.

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[1] Caronni, abstract.

The gateway recited in Applicants' amended claims decrypts encrypted data received from the first terminal device or the second terminal device _according to the information regarding the security association_. However, while _Caronni_ decrypts data from an external device, _Caronni_ does not decrypt the data according to the information regarding the security association as recited in Applicants' amended claims. In addition, the gateway recited in Applicants' independent claims relays data at a transport or upper layer _according to the decrypted data_. _Caronni_ fails to teach or suggest any data relaying operation, let alone Applicants' recited relay at a transport or upper layer _according to the decrypted data_. By relaying at a transport or upper layer _according to the decrypted data_, present invention is provided as a proxy device for improving performance of TCP, whereas the gateway in _Caronni_ merely maintains access control lists (ACLs) to prevent unauthorized devices from accessing the secure network. Similarly, _Caronni_ does not encrypt the data _according to the information regarding the security association_.

Applicants' Claims 10, 20 and 22 recite an authentication function to attach authentication information to data to be transmitted to the second terminal device or the first terminal device _according to the information regarding the security association_. _Caronni_ fails to teach or suggest such an authentication operation.

Applicants have also considered the _Inoue_ reference and submit _Inoue_ does not cure the deficiencies of _Caronni_. As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claims 1, 10, and 19 - 22, Applicants submit the inventions defined by Claims 1, 10, and 19 - 22, and all claims depending therefrom, are not anticipated and are not rendered obvious by the asserted references for at least the reasons stated above.[2]

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[2] MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of

Accordingly, in view of the present amendment and in light of the previous

discussion, Applicants respectfully submit that the present application is in condition for

allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488,
20 USPQ2d 1438 (Fed. Cir. 1991)."